

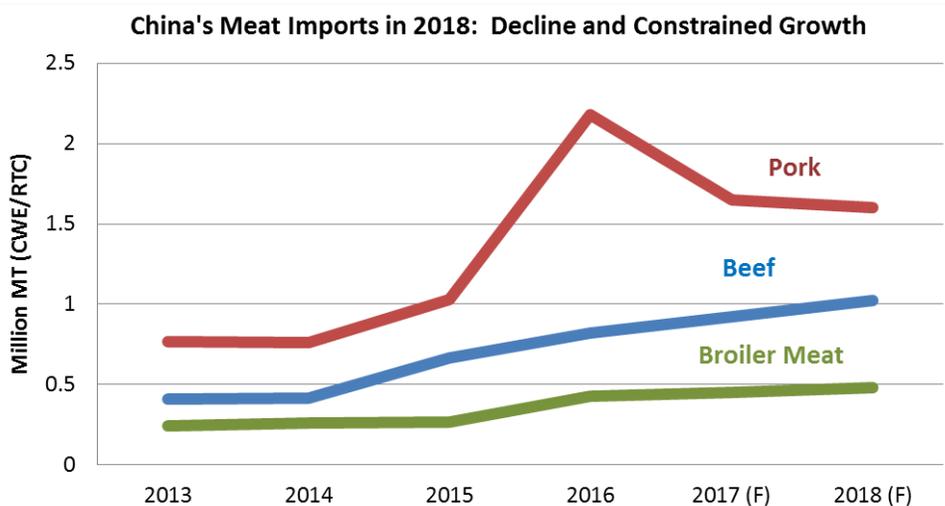


Livestock and Poultry: World Markets and Trade

China's Meat and Poultry Import Forecast 2018: Decline and Constrained Growth

China's beef and broiler meat imports are forecast to rise 11 and 7 percent, respectively, in 2018. Despite robust Chinese demand coupled with stagnant or declining production, additional growth in imports is constrained by restrictions which limit supplies from the United States, a key global trader. The United States is currently not eligible to export broiler meat to China due to highly pathogenic avian influenza (HPAI) restrictions.¹ Even though the United States regained access to China's beef market in May 2017, shipments are likely to be constrained in the short term due to market requirements which limit the ability of the United States to maximize trade opportunities. China is the world's second and seventh largest beef and broiler meat importer, respectively, accounting for 13 and 5 percent of forecast trade.

Alternatively, China's pork imports are forecast to decline for the second consecutive year in 2018 as domestic production gains reduce demand of imported pork. The European Union, United States, and Canada will remain the principal suppliers, competing primarily on price. With relatively strong demand for processing, imports are unlikely to retreat to past levels, maintaining China as the world's top importer of pork accounting for nearly one-fifth of forecast trade.



¹ The World Organization for Animal Health (OIE) declared the United States HPAI-free as of August 11, 2017.

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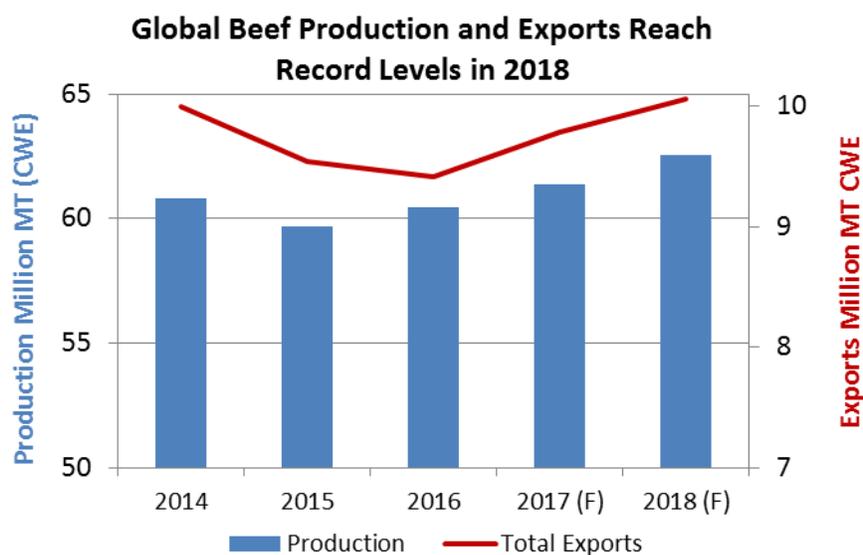
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Beef and Veal

Global production is forecast to grow nearly 2 percent in 2018 to 62.6 million tons with the United States and Brazil alone accounting for about half of the growth. Brazil will be spurred by expanding exports but potentially faces headwinds from domestic industry issues. Argentina's production will continue to be boosted by favorable policy developments and herd expansion. Having recovered from drought-induced herd liquidation followed by herd rebuilding, Australia's beef production is rebounding.

Global exports in 2018 are forecast nearly 3 percent higher to 10.1 million tons, driven by shipments from Brazil, Australia, Argentina, and the United States. Demand in East Asia will remain robust. China, in particular, will continue to drive trade, as domestic production cannot meet growing consumption. Oil-producing regions will continue to be challenged by relatively low oil prices, which hamper economic growth and stymie demand.

U.S. production and exports: Production is expected up nearly 3 percent in 2018 to a record 12.4 million tons, as the United States enters the fourth year of its herd expansion. Sustained elevated supplies and lower U.S. beef prices will boost exports to Mexico, Canada, and major markets in East Asia. The United States will face renewed competition in Asian markets from Australia as its herd expands. In Japan, the United States will also have to contend with Australia's widening tariff advantage. However, a relatively weaker U.S. dollar in 2018 could further buoy U.S. beef exports.



Beef and Veal Production - Selected Countries Summary
1,000 Metric Tons (Carcass Weight Equivalent)

	2013	2014	2015	2016	2017	2018 Oct
Production						
Brazil	9,675	9,723	9,425	9,284	9,450	9,700
European Union	7,388	7,443	7,684	7,881	7,890	7,900
China	6,730	6,890	6,700	7,000	7,070	7,110
India	3,800	4,100	4,100	4,200	4,250	4,300
Argentina	2,850	2,700	2,720	2,650	2,760	2,900
Australia	2,359	2,595	2,547	2,125	2,125	2,250
Mexico	1,807	1,827	1,850	1,879	1,915	1,960
Pakistan	1,630	1,685	1,710	1,750	1,780	1,800
Turkey	1,217	1,245	1,423	1,484	1,515	1,600
Russia	1,385	1,375	1,355	1,335	1,315	1,300
Others	9,943	10,157	9,368	9,348	9,194	9,286
Total Foreign	48,784	49,740	48,882	48,936	49,264	50,106
United States	11,751	11,075	10,817	11,507	12,109	12,448
Total	60,535	60,815	59,699	60,443	61,373	62,554
Total Dom. Consumption						
China	7,112	7,277	7,342	7,765	7,985	8,140
Brazil	7,885	7,896	7,781	7,652	7,745	7,935
European Union	7,520	7,514	7,744	7,906	7,830	7,840
Argentina	2,664	2,503	2,534	2,434	2,480	2,550
India	1,919	2,018	2,294	2,436	2,425	2,450
Mexico	1,873	1,839	1,797	1,809	1,840	1,875
Russia	2,398	2,297	1,966	1,847	1,824	1,770
Pakistan	1,576	1,627	1,636	1,685	1,711	1,726
Turkey	1,222	1,250	1,457	1,496	1,523	1,628
Japan	1,232	1,225	1,186	1,215	1,260	1,265
Others	11,733	12,062	10,806	10,791	10,548	10,847
Total Foreign	47,134	47,508	46,543	47,036	47,171	48,026
United States	11,608	11,241	11,276	11,678	12,191	12,524
Total	58,742	58,749	57,819	58,714	59,362	60,550

Notes: Includes meat of other bovines for certain countries. India includes carabeef (water buffalo). From 2015, the following countries are excluded: Albania, Azerbaijan, Cote d'Ivoire, Georgia, Ghana, Jamaica, Senegal and Uzbekistan. The notation of a month beneath a year conveys the month in which the forecast for that year was released.

Beef and Veal Trade - Selected Countries Summary
1,000 Metric Tons (Carcass Weight Equivalent)

	2013	2014	2015	2016	2017	2018 Oct
Total Imports						
China	412	417	666	818	925	1,025
Japan	760	739	707	719	780	815
Korea, South	375	392	414	513	550	560
Russia	1,023	932	621	522	520	480
Hong Kong	473	646	339	453	425	410
European Union	376	372	363	369	340	360
Chile	210	210	213	269	290	300
Egypt	195	270	360	340	250	280
Canada	295	284	280	254	225	235
Mexico	232	206	175	188	205	210
Others	2,074	2,085	1,964	1,879	1,897	1,943
Total Foreign	6,425	6,553	6,102	6,324	6,407	6,618
United States	1,020	1,337	1,529	1,367	1,341	1,374
Total	7,445	7,890	7,631	7,691	7,748	7,992
Total Exports						
India	1,881	2,082	1,806	1,764	1,825	1,850
Brazil	1,849	1,909	1,705	1,698	1,760	1,825
Australia	1,593	1,851	1,854	1,480	1,450	1,525
New Zealand	529	579	639	587	570	570
Canada	333	380	398	443	475	475
European Union	244	301	303	344	400	420
Uruguay	340	350	373	421	432	420
Paraguay	326	389	381	389	380	380
Argentina	186	197	186	216	280	350
Mexico	166	194	228	258	280	295
Others	618	598	644	663	654	626
Total Foreign	8,065	8,830	8,517	8,263	8,506	8,736
United States	1,174	1,167	1,028	1,159	1,285	1,320
Total	9,239	9,997	9,545	9,422	9,791	10,056

Notes: Includes meat of other bovines for certain countries. Indian exports are carabeef (water buffalo). From 2015, the following countries are excluded: Albania, Azerbaijan, Cote d'Ivoire, Georgia, Ghana, Jamaica, Senegal and Uzbekistan. The notation of a month beneath a year conveys the month in which the forecast for that year was released.

Cattle Stocks - Selected Countries Summary
(in 1,000 head)

	2013	2014	2015	2016	2017	2018 Oct
Total Cattle Beg. Stks						
India	299,606	300,600	301,100	302,600	303,600	305,000
Brazil	203,273	207,959	213,035	219,180	226,045	232,350
China	103,434	103,000	100,450	100,275	99,173	98,100
European Union	87,106	87,619	88,406	89,152	89,078	89,030
Argentina	51,095	51,545	51,545	52,565	53,515	54,215
Australia	28,418	29,291	29,102	27,413	24,971	25,500
Russia	19,930	19,564	19,152	18,879	18,638	18,380
Mexico	18,521	17,760	17,120	16,615	16,490	16,585
Turkey	14,022	14,532	14,345	14,127	14,200	14,550
Uruguay	11,384	11,903	12,053	12,016	11,864	11,804
Others	78,406	76,273	44,188	43,787	44,040	44,153
Total Foreign	915,195	920,046	890,496	896,609	901,614	909,667
United States	90,095	88,526	89,143	91,918	93,585	94,400
Total	1,005,290	1,008,572	979,639	988,527	995,199	1,004,067
Production (Calf Crop)						
India	65,000	66,000	67,000	67,500	68,200	68,700
China	48,800	47,900	49,000	50,000	50,500	50,900
Brazil	50,185	49,600	48,220	48,250	48,350	49,500
European Union	29,050	29,280	29,900	30,050	30,030	30,080
Argentina	14,000	13,300	14,200	14,000	14,200	14,800
Australia	10,783	11,063	9,394	6,600	9,050	10,000
Mexico	6,700	6,750	6,850	7,100	7,425	7,580
Russia	6,820	6,670	6,620	6,600	6,480	6,400
New Zealand	4,923	5,440	5,040	5,060	4,834	4,900
Canada	4,516	4,611	4,203	4,297	4,300	4,400
Others	18,684	17,932	13,719	13,694	13,752	13,975
Total Foreign	259,461	258,546	254,146	253,151	257,121	261,235
United States	33,730	33,522	34,087	35,083	36,300	37,100
Total	293,191	292,068	288,233	288,234	293,421	298,335

Notes: May contain other bovines. From 2015, Colombia and Venezuela are excluded. The notation of a month beneath a year conveys the month in which the forecast for that year was released.

Cattle Trade - Selected Countries Summary
(in 1,000 head)

	2013	2014	2015	2016	2017	2018 Oct
Total Imports						
Turkey	194	50	203	494	700	700
Egypt	100	200	170	300	250	250
China	98	230	129	133	120	100
Mexico	30	28	23	31	31	35
Canada	48	45	36	33	50	30
Russia	97	75	144	63	35	30
Japan	12	10	9	9	11	12
Brazil	0	10	2	3	0	2
Belarus	1	1	2	1	1	1
Ukraine	3	1	1	3	1	1
Others	712	565	0	0	0	0
Total Foreign	1,295	1,215	719	1,070	1,199	1,161
United States	2,033	2,358	1,984	1,708	1,815	1,925
Total	3,328	3,573	2,703	2,778	3,014	3,086
Total Exports						
Mexico	1,045	1,177	1,213	1,130	1,200	1,225
European Union	504	499	809	997	1,000	1,010
Australia	851	1,297	1,336	1,154	800	900
Canada	1,044	1,245	832	766	665	730
Brazil	689	649	212	293	350	430
Uruguay	41	140	217	307	280	300
Ukraine	11	27	45	51	70	70
New Zealand	33	79	21	41	21	24
China	19	19	18	17	15	13
Russia	13	28	26	11	8	10
Others	236	86	7	5	3	3
Total Foreign	4,486	5,246	4,736	4,772	4,412	4,715
United States	161	108	73	69	120	135
Total	4,647	5,354	4,809	4,841	4,532	4,850

Notes: May contain other bovines. From 2015, Colombia and Venezuela are excluded. The notation of a month beneath a year conveys the month in which the forecast for that year was released.

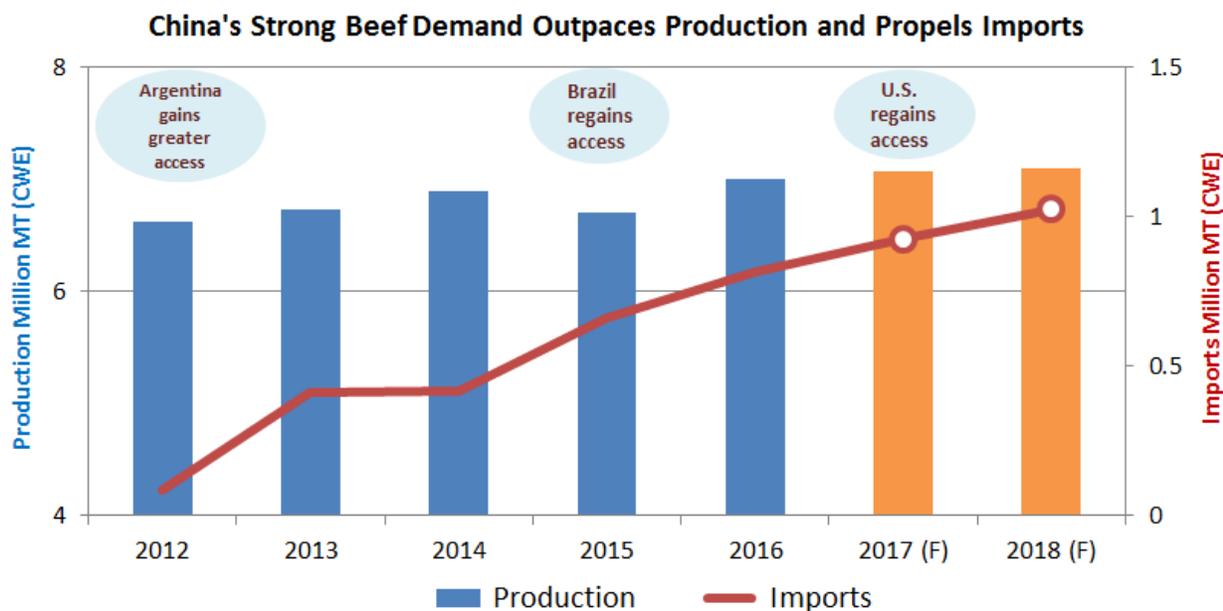
U.S. Beef Regains Access to China, World's Largest Growth Market

Ryan Bedford, Agricultural Economist

In May 2017, the United States regained access to the China beef market, allowing exports of fresh/chilled/frozen and bone-in/deboned product, as well as some variety meats. In the 13 years since the United States lost access due to BSE, China has been transformed from an insignificant buyer into the world's second-largest importer. Its domestic beef industry has been unable to boost production at the pace necessary to meet rising demand. As a result, beef imports have grown sharply since 2013, reaching 820,000 tons (\$2.6 billion) in 2016. While opportunities exist for U.S. beef exports to China, shipments are likely to be constrained in the short term due to market requirements limiting exportable supplies.

China's Rapid Transformation into a Major Beef Importer¹

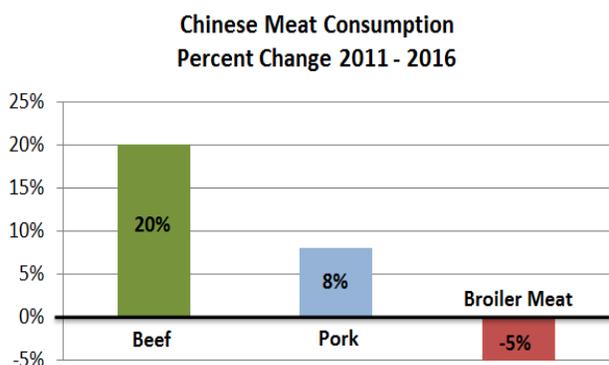
From 2011 to 2016, China's domestic beef production grew 8 percent to 7.0 million tons (carcass weight equivalent), but was outpaced by even stronger consumption growth, which rose 20 percent to 7.8 million tons during the same period. China's production is constrained by high costs, inadequate cold chain infrastructure, lack of investment, and a fragmented industry of mostly small-scale producers located inland which is challenged to service primary consumption centers in eastern China. Unable to fully satisfy demand with domestic production, the country has increasingly looked to the international market.



¹ The data analysis in this report only covers beef as per the USDA-FAS-PSD (HS codes 0201, 0202, 160250, 021020). Variety meats are excluded.

Robust Demand Supports Import Growth...

The United States was the lead supplier with a two-thirds market share of the then-small \$15 million China beef market when it lost access in 2003. During the following 13 years, China's consumers steadily consumed more red meat and poultry, owing to both higher individual income levels and population growth. Although traditionally the least consumed meat, beef consumption grew faster compared to pork and broiler meat over the past 5 years as rising prices for broiler meat and pork (due to lower production) made beef relatively more affordable.



Source: USDA-FAS-PSD

Key Drivers of Chinese Beef Demand



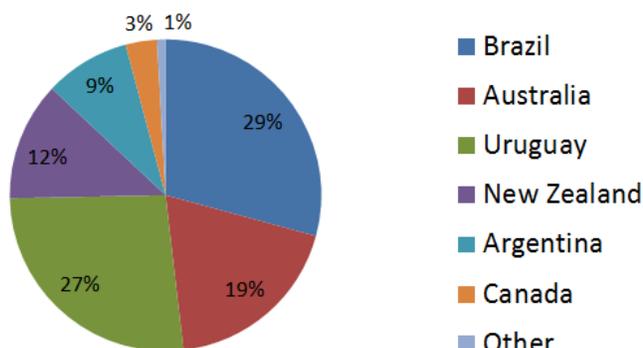
...And Fierce Competition for Those Consumers Prevails

The China beef market that the United States reenters is not only larger by several orders of magnitude, but it has also become much more competitive. Over the past 5 years, most major beef exporters have increased the share of their total trade sold to China and will work to maintain these gains. In several cases, notably Uruguay and Argentina, China has become an essential market. Potential U.S. exports will also have to contend with price and exchange rate differentials, competitors' already established trade services, and China's preference for lean versus marbled beef (which is a key U.S. beef attribute).

China as Percent of Traders' Total Beef Exports		
Country	2011	2016
Brazil	0.3%	14%
Australia	1%	9%
Uruguay	4%	46%
New Zealand	1%	17%
Argentina	0%	30%
Canada	0%	2%

Source: IHS Markit

The China Beef Market: Import Shares (2016)



Source: IHS Markit

**Specified
Requirements
for U.S. Beef
Exports to
China**

Beef and beef products must be sourced from cattle that were born, raised, and slaughtered in the United States, or from cattle that were imported from Canada or Mexico and slaughtered in the United States.

Cattle must be traceable to the U.S. birth farm using a unique identifier, or if imported, to the first place of residence or port of entry. However, full traceability (i.e., all operations on which the animal resided) is not necessary.

Beef and beef products must be derived from cattle less than 30 months of age.

There are no requirements for the U.S. government to certify the non-use of particular substances such as beta-agonists and other growth promotants, but China reserves the right to test at the port of entry and reject shipments if there are positive detections of substances prohibited in China.

The Food Safety and Inspection Service (FSIS) has updated its [Export Library](#) specifying China's requirements for certifying U.S. beef shipments. Beef exported to China must meet extra-regulatory requirements outlined in the Agricultural Marketing Service's (AMS) [Export Verification \(EV\) Program](#). Please also refer to the [GAIN Report](#) from FAS/Beijing that explains the procedures for exporting U.S. beef to China.

Initially, U.S. Supply of Eligible Cattle Will Limit Beef Exports to China

As U.S. beef producers begin adhering to the U.S.-China beef protocol, as reflected in the FSIS Export Library, China's requirements will limit U.S. exportable supplies. For example, as there is no mandatory cattle identification (ID) program in the United States, operations will utilize voluntary ID programs to show the U.S. birth farm or point of origin. Further, China's prohibition on the detection of growth promotants requires ranchers to raise non-hormone treated cattle, which represent a small segment of the herd due to the reduced efficiency and increased cost of production.² Such cattle are sold at a premium, for example, averaging an additional \$18 per cwt during January-July 2017³, and sold to a limited number of high-price markets, particularly EU and U.S. specialty markets. The pool of cattle already participating in these programs is limited and the biology of raising cattle implies that it will take time to increase the number of slaughter-ready cattle meeting these requirements.

The United States has several Export Verification Programs for countries such as the EU to facilitate trade in beef. In the short-to-medium term, beef sold to China will have to be sourced from this

² Alternative Beef Production Systems: Issues and Implications, USDA Economic Research Service, April 2013. https://www.ers.usda.gov/webdocs/publications/37473/36491_ldpm-218-01.pdf?v=41368

³ National Weekly Direct Slaughter Cattle – Premiums and Discounts, USDA Market News Service. https://www.ams.usda.gov/mnreports/lm_ct155.txt

specialized segment of the U.S. cattle herd, thus competing with demand from those markets. In the longer term, strong China demand may spur more U.S. ranchers to adjust their production methods to meet market demands. With constraints on China's production expansion likely to persist in the long term⁴, imports are expected to continue growing. U.S. beef could therefore find ample opportunities.

Outlook for China Beef Imports

China is forecast to import 1.0 million tons in 2018, 11 percent higher than in 2017. South American countries will remain the top suppliers, as Brazil, Uruguay, and Argentina maintain their strong export growth. Australia, previously the largest exporter to China, will remain limited by its reduced supplies as herd rebuilding continues. U.S. beef will compete with other high-end beef supplies from Australia and Canada, but will be constrained by the terms stipulated in the protocol. However, U.S. beef has a good reputation in China and may find success in upscale markets.

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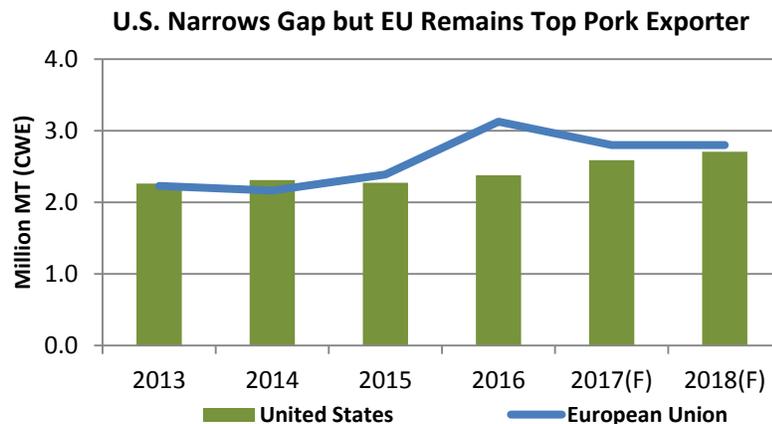
⁴ 2017 International Long-Term Projections to 2026, USDA Economic Research Service, March 2017.
<https://www.ers.usda.gov/webdocs/DataFiles/51280/BL-2017-SU-All-2014-2026.xlsx?v=42824>

Pork

Global production is forecast up nearly 2 percent in 2018 to 113.1 million tons, primarily on expansion in China and to a lesser extent the United States. China's pork production will rise for the second consecutive year as producers respond to positive returns. Additions to the sow herd and higher finished weights will both drive production during 2018. Robust consumer demand for pork will also boost output in Russia, the Philippines, and Mexico. Among major producers, only the European Union will reduce output due to a stagnant domestic market and export sales.

Global exports are forecast nearly 3 percent higher in 2018 driven by strong demand from Mexico, the Philippines, and South America (Argentina, Chile, and Colombia) where competitive prices support gains in per capita consumption. China will remain the top importer, but shipments will fall for the second consecutive year due to rising domestic production. The European Union will remain the largest exporter – unchanged at 2.8 million tons – but export growth is challenged by declining shipments to China and an appreciating euro.

U.S. production and exports: Production is expected to grow 4 percent in 2018, continuing strong growth in 2017. Producers have responded to robust domestic and export demand by farrowing more sows while the number of pigs per litter is at record levels. Continued production growth is expected to pressure hog prices in 2018 and help spur a near 5-percent gain in exports. Mexico will remain an important market for the United States, aided by relatively high domestic prices. Shipments will also remain resilient to Asia, especially to Japan and the Philippines.



Pork Production - Selected Countries Summary
1,000 Metric Tons (Carcass Weight Equivalent)

	2013	2014	2015	2016	2017	2018 Oct
Production						
China	54,930	56,710	54,870	52,990	53,500	54,750
European Union	22,359	22,540	23,249	23,523	23,400	23,350
Brazil	3,335	3,400	3,519	3,700	3,725	3,755
Russia	2,400	2,510	2,615	2,870	2,960	3,000
Vietnam	2,357	2,431	2,572	2,701	2,750	2,775
Canada	1,822	1,805	1,899	1,914	1,960	2,000
Philippines	1,388	1,402	1,463	1,540	1,585	1,635
Mexico	1,284	1,290	1,323	1,376	1,430	1,480
Korea, South	1,252	1,200	1,217	1,266	1,307	1,332
Japan	1,309	1,264	1,254	1,279	1,275	1,270
Others	5,889	5,732	5,516	5,490	5,420	5,535
Total Foreign	98,325	100,284	99,497	98,649	99,312	100,882
United States	10,525	10,368	11,121	11,320	11,722	12,188
Total	108,850	110,652	110,618	109,969	111,034	113,070
Total Dom. Consumption						
China	55,456	57,194	55,668	54,980	54,935	56,115
European Union	20,147	20,390	20,873	20,410	20,613	20,563
Russia	3,282	3,021	3,016	3,192	3,260	3,275
Brazil	2,751	2,846	2,893	2,870	2,917	2,927
Vietnam	2,341	2,414	2,550	2,676	2,718	2,740
Japan	2,549	2,543	2,568	2,626	2,705	2,705
Mexico	1,956	1,991	2,176	2,256	2,395	2,510
Korea, South	1,628	1,660	1,813	1,894	1,978	1,990
Philippines	1,559	1,600	1,637	1,734	1,834	1,919
Taiwan	892	875	937	902	913	918
Others	7,240	6,886	6,676	6,652	6,723	7,054
Total Foreign	99,801	101,420	100,807	100,192	100,991	102,716
United States	8,665	8,544	9,341	9,475	9,597	9,868
Total	108,466	109,964	110,148	109,667	110,588	112,584

Note: From 2015, the following countries are excluded: Albania, Armenia, Congo (Brazzaville), Gabon, Georgia, Ghana, Jamaica, North Korea, Kyrgyzstan, Moldova, Switzerland and Trinidad and Tobago. From 2016, Venezuela is excluded. The notation of a month beneath a year conveys the month in which the forecast for that year was released.

Pork Trade - Selected Countries Summary
1,000 Metric Tons (Carcass Weight Equivalent)

	2013	2014	2015	2016	2017	2018 Oct
Total Imports						
China	770	761	1,029	2,181	1,650	1,600
Japan	1,223	1,332	1,270	1,361	1,440	1,435
Mexico	783	818	981	1,021	1,125	1,200
Korea, South	388	480	599	615	680	655
Hong Kong	399	347	397	429	410	425
Russia	883	516	408	347	325	300
Philippines	172	199	175	195	250	285
Australia	183	191	220	210	220	230
Canada	220	214	216	215	220	225
Chile	51	45	47	76	105	125
Others	1,139	979	870	828	948	1,114
Total Foreign	6,211	5,882	6,212	7,478	7,373	7,594
United States	399	459	506	495	506	454
Total	6,610	6,341	6,718	7,973	7,879	8,048
Total Exports						
European Union	2,227	2,164	2,388	3,125	2,800	2,800
Canada	1,246	1,220	1,239	1,320	1,330	1,350
Brazil	585	556	627	832	810	830
China	244	277	231	191	215	235
Chile	164	163	178	173	180	195
Mexico	111	117	128	141	160	170
Australia	36	37	36	38	42	45
Vietnam	22	21	30	35	40	43
Russia	1	5	7	25	25	25
Serbia	4	25	19	11	17	22
Others	109	93	80	52	63	63
Total Foreign	4,749	4,678	4,963	5,943	5,682	5,778
United States	2,262	2,310	2,272	2,377	2,589	2,706
Total	7,011	6,988	7,235	8,320	8,271	8,484

Note: From 2015, the following countries are excluded: Albania, Armenia, Congo (Brazzaville), Gabon, Georgia, Ghana, Jamaica, North Korea, Kyrgyzstan, Moldova, Switzerland and Trinidad and Tobago. From 2016, Venezuela is excluded. The notation of a month beneath a year conveys the month in which the forecast for that year was released.

Swine Stocks - Selected Countries Summary
(in 1,000 head)

	2013	2014	2015	2016	2017	2018 Oct
Total Beginning Stocks						
China	475,922	474,113	465,830	451,130	435,040	420,000
European Union	146,982	146,172	148,341	148,716	147,240	147,200
Brazil	38,577	38,844	39,395	39,422	39,223	38,960
Russia	18,816	19,081	19,405	21,345	21,888	22,200
Canada	12,610	12,940	13,180	13,575	13,760	14,100
Mexico	9,510	9,775	9,700	9,917	10,697	11,275
Korea, South	9,916	9,912	10,090	10,187	10,366	10,600
Japan	9,685	9,537	9,440	9,313	9,346	9,307
Ukraine	7,577	7,922	7,492	7,240	6,816	6,350
Belarus	4,243	3,267	2,925	3,205	3,152	3,125
Others	2,138	2,098	2,308	2,272	nr	nr
Total Foreign	735,976	733,661	728,106	716,322	697,528	683,117
United States	66,224	64,775	67,776	68,919	71,525	72,125
Total	802,200	798,436	795,882	785,241	769,053	755,242
Production (Pig Crop)						
China	716,941	729,927	696,600	672,500	678,500	710,000
European Union	257,000	261,750	265,287	265,000	265,200	265,000
Russia	36,000	37,000	39,830	41,477	42,645	43,300
Brazil	37,900	38,470	39,050	39,635	40,000	40,300
Canada	27,376	27,092	28,927	28,696	29,215	29,650
Mexico	17,800	17,600	18,000	19,200	19,600	20,200
Korea, South	16,953	16,812	17,600	18,383	18,801	19,200
Japan	17,350	17,050	16,700	16,900	16,780	16,700
Ukraine	9,465	9,527	9,624	10,760	8,770	9,600
Belarus	5,325	4,850	5,200	5,200	5,295	5,385
Others	4,737	5,022	4,921	5,028	nr	nr
Total Foreign	1,146,847	1,165,100	1,141,739	1,122,779	1,124,806	1,159,335
United States	115,135	114,856	121,411	125,936	129,300	132,300
Total	1,261,982	1,279,956	1,263,150	1,248,715	1,254,106	1,291,635

Notes: The notation of a month beneath a year conveys the month in which the forecast for that year was released. nr - represents "no reporting" countries (data sets excluded beginning in 2017). From 2017, the following country is excluded: Australia.

Swine Trade - Selected Countries Summary
(in 1,000 head)

	2013	2014	2015	2016	2017	2018 Oct
Total Imports						
Mexico	10	14	42	20	25	28
Canada	1	3	6	3	5	5
China	24	9	4	8	5	5
Russia	86	8	2	8	7	5
European Union	1	1	3	3	4	4
Belarus	3	5	8	9	3	3
Korea, South	2	2	2	3	3	3
Ukraine	231	22	22	4	3	3
Brazil	1	0	1	0	1	1
Japan	1	1	0	1	1	1
Others	0	0	0	0	nr	nr
Total Foreign	360	65	90	59	57	58
United States	4,948	4,947	5,740	5,656	5,632	5,700
Total	5,308	5,012	5,830	5,715	5,689	5,758
Total Exports						
Canada	4,784	4,960	5,776	5,671	5,650	5,725
China	1,684	1,737	1,696	1,552	1,500	1,550
European Union	569	567	436	281	250	250
Ukraine	0	1	1	27	35	35
Mexico	0	0	0	0	8	8
Russia	0	0	2	7	5	5
Brazil	4	3	4	2	4	2
Belarus	52	0	1	5	0	0
Japan	0	0	0	0	0	0
Korea, South	0	0	0	0	0	0
Others	0	0	0	0	nr	nr
Total Foreign	7,093	7,268	7,916	7,545	7,452	7,575
United States	34	19	41	48	65	70
Total	7,127	7,287	7,957	7,593	7,517	7,645

Notes: The notation of a month beneath a year conveys the month in which the forecast for that year was released. nr - represents "no reporting" countries (data sets excluded beginning in 2017). From 2017, the following country is excluded: Australia.

China's Swine Herd Enters a New Cycle

Lindsay Kuberka, Agricultural Economist

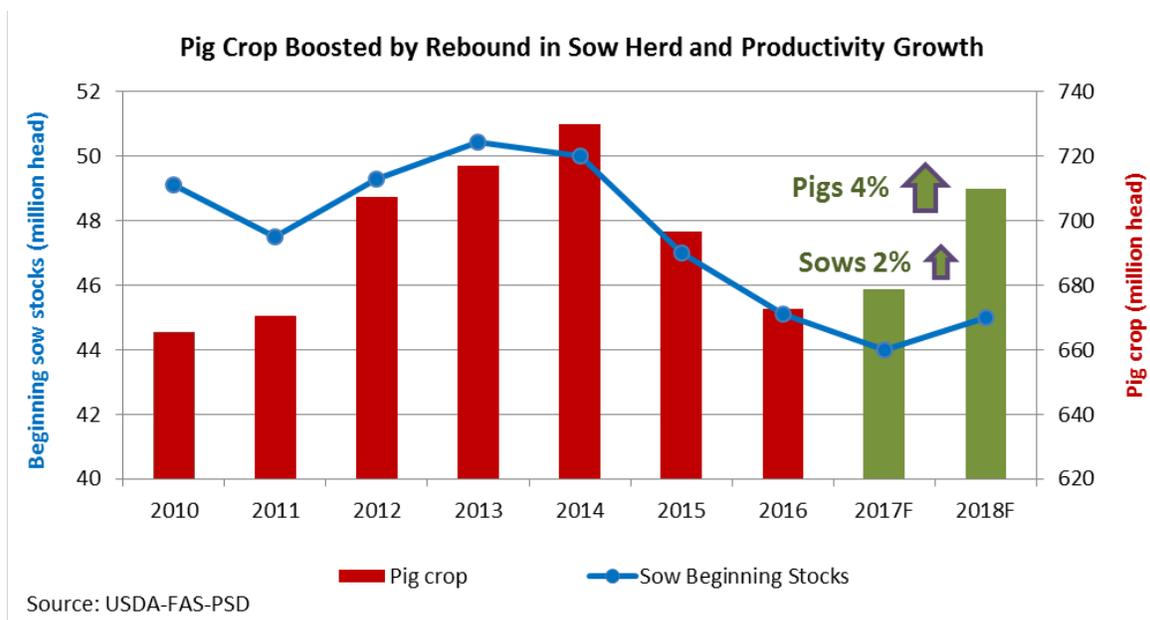
Buoyed by strong returns over the past few years, Chinese hog producers entered an expansionary period during 2017 which is forecast to continue during 2018. The industry continues to undergo significant consolidation, hastened by new and stepped-up enforcement of environmental regulations aimed at curbing pollution from swine farms. Producers are fewer in number but larger, as producers respond to growing production costs with increased scale efficiencies. Expansion is expected to drive pork production up during 2017 and 2018 after 2 consecutive years of declining output. China's pork imports are forecast to decline considerably over the same period, but remain far above historical levels.

Environmental Regulations Hasten Industry Consolidation

Chinese hog producers continue to adjust to a stricter regulatory climate at the same time that the herd emerges from a cyclical low. New standards limiting manure emissions from livestock farms have resulted in the closure of swine farms in proximity to vulnerable water supplies and urban centers. Remaining farms have been required to invest in costly manure management facilities and equipment that small-scale farms cannot easily bear. Closures have proceeded at a pace that varies across regions with a target for completion at the end of 2017. While many provinces have completed closures, implementation is still underway in other provinces, including some with dense swine production. According to the Ministry of Environmental Protection, 213,000 farms were closed or moved during the first half of 2017. However, lack of precise data on the pace and full scale of closures continues to cause considerable uncertainty over the number of farms and hogs remaining.

Several meat and feed companies have announced ambitious expansion plans to fill the void left by the exit of small-scale farms. Numerous operations have been built with modern facilities and capacity to hold thousands of sows each. Agricultural authorities offer subsidies to help farms upgrade handling and treatment of manure, and for demonstration programs to utilize manure as organic fertilizer. Participants in these programs are predominantly medium- or large-scale farms.

Farm closures come at the end of a cyclical contraction in hog supplies and a steep run-up in prices that began in 2014. Between 2013 and 2017, China's total swine herd declined 9 percent to 435 million head. The sow herd fell faster, declining 13 percent during the same period. The outsized change in sows reflects the exit of mainly small, less-efficient producers who could not comply with new standards. The herd is forecast to recover modestly by the end of 2018 while sows are expected to be added by the beginning of 2018.



Hog Prices Expected to Decline Through 2018

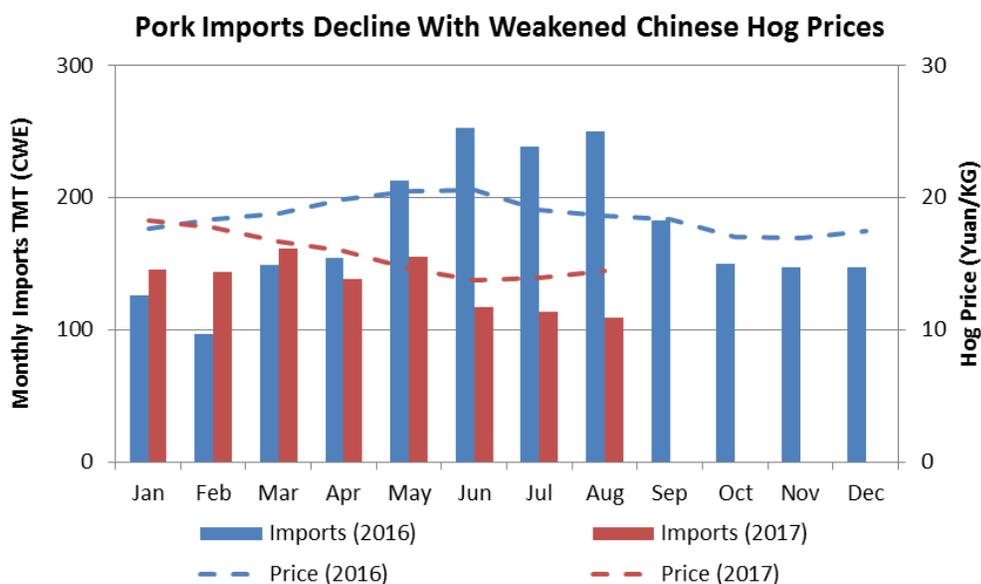
Historically high prices and the entry of modern farms led to a rebound in capacity that is partially offsetting the impact of farm closures. Pork production is forecast to grow 1 percent in 2017 and 2 percent in 2018. Pork production growth is supported by efficiency gains on farm. Production per sow per year (PSY)¹ rose from an average 14.2 in 2013 to 14.9 in 2016, with the most efficient producers reporting PSYs of over 25, closing in on rates in the United States. Advancements in productivity can be attributed to improvements in genetics, animal health, and veterinary care. Besides expanding barn space, producers are also investing in technology like automatic feeding and monitoring systems which boost animal health and lower costs. These factors are expected to support growth in average carcass weights next year.

Record hog prices and large profits during 2016 encouraged producers to invest in new facilities and equipment. Producers reaped profits of \$100 per head last year and most producers will at least break even during 2017, despite a substantial decline in finished hog prices. Large and vertically-integrated companies are expanding at extraordinary rates, mostly through the adoption of contract farming arrangements (termed “company plus farmer”). Integrators build farrowing facilities, but outsource grow-out to small farmers who own land and feeding barns. These farmers are provided animals and all inputs and guaranteed a minimum price for finished hogs. While the largest producers still control a minority of hog supplies, growth in this part of the sector now appears to exceed the exit of small producers, a trend which will drive hog supplies during 2017 and 2018.

¹ PSY is defined as the pig crop (pigs saved) divided by the number of sows at the beginning of the year (USDA-FAS-PSD).

Production Growth Dampens Demand for Imports

Imports are forecast to decline for the second consecutive year in 2018 as production gains reduce demand for imported pork. Although pork production is expected to recover in 2018, demand strength will support increased imports. However, imports are expected to fall short of the peak reached in 2014. With production growing in most major exporting countries, declines in international pork prices will keep imports relatively competitive. The European Union, United States, and Canada will remain the principal suppliers, competing primarily on price. With relatively strong demand for processing, imports are unlikely to retreat to past levels, maintaining China as the top importer of pork.



Sources: IHS Marikit and China Ministry of Agriculture

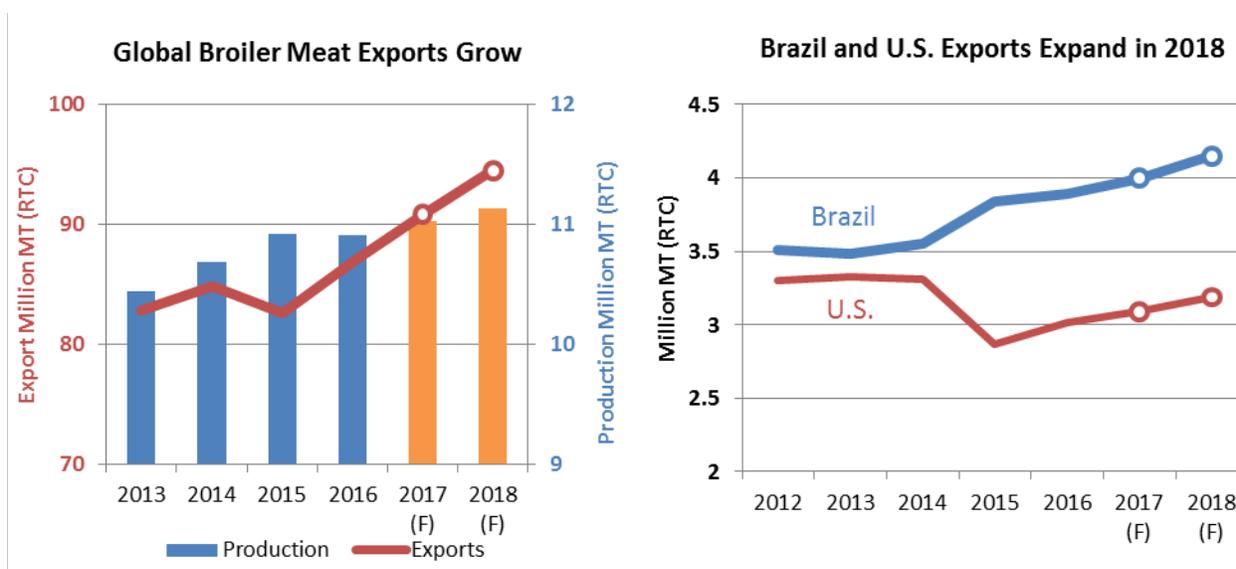
For more information, contact: Lindsay Kuberka | USDA-FAS, Office of Global Analysis, Global Commodity Analysis Division | Lindsay.Kuberka@fas.usda.gov, (202) 644-4650

Broiler Meat

Global production is forecast to grow 1 percent in 2018 to 91.3 million tons, primarily from gains in the United States, Brazil, India, and the European Union. U.S. and Brazilian expansion is driven by higher exports while the European Union and India are due to slow but steady growth in domestic demand. China's production is forecast down 5 percent in 2018 for a third year in a row. China continues to be constrained by highly pathogenic avian influenza (HPAI), the limited availability of genetics, a saturated market, weak prices, and soft demand.

Global exports in 2018 are forecast 3 percent higher to 11.4 million tons. As Brazil recovers from a slow first half of 2017 following quality issues, exports are forecast almost 4 percent higher in 2018. Brazil's growing exports are driven by rebounding product competitiveness and key competitors negatively impacted by avian influenza related trade restrictions. China's imports are forecast up nearly 7 percent as production continues to struggle. Brazil is well-situated to strengthen shipments to China and further expand its market share.

U.S. production and exports: Production is expected to rise 2 percent to a record 19.0 million tons in 2018. Exports will rise 3 percent to nearly 3.2 million tons. The United States is now HPAI free, as of August 2017, higher production will be supported by growing domestic consumption, rising export demand from Mexico, and improved shipments to other primary markets.



Broiler Meat Production - Selected Countries Summary
1,000 Metric Tons (Ready to Cook Equivalent)

	2013	2014	2015	2016	2017	2018 Oct
Production						
Brazil	12,308	12,692	13,146	12,910	13,250	13,550
European Union	10,050	10,450	10,890	11,533	11,700	11,880
China	13,350	13,000	13,400	12,300	11,600	11,000
India	3,450	3,725	3,900	4,200	4,400	4,600
Russia	3,010	3,260	3,600	3,730	3,870	3,910
Mexico	2,907	3,025	3,175	3,275	3,400	3,500
Argentina	2,060	2,050	2,080	2,055	2,086	2,110
Thailand	1,500	1,570	1,700	1,780	1,900	1,990
Turkey	1,758	1,894	1,909	1,900	1,950	1,975
Malaysia	1,458	1,584	1,633	1,671	1,690	1,710
Others	15,580	16,209	15,722	15,483	15,733	16,083
Total Foreign	67,431	69,459	71,155	70,837	71,579	72,308
United States	16,976	17,306	17,971	18,261	18,596	18,970
Total	84,407	86,765	89,126	89,098	90,175	91,278
Total Dom. Consumption						
European Union	9,638	10,029	10,441	11,018	11,170	11,320
China	13,174	12,830	13,267	12,344	11,650	11,095
Brazil	8,829	9,137	9,309	9,024	9,252	9,402
India	3,445	3,716	3,892	4,196	4,397	4,597
Mexico	3,582	3,738	3,960	4,061	4,144	4,269
Russia	3,504	3,660	3,804	3,850	3,960	4,015
Japan	2,209	2,228	2,321	2,386	2,425	2,425
Argentina	1,729	1,773	1,894	1,905	1,909	1,916
Malaysia	1,494	1,624	1,677	1,731	1,750	1,780
South Africa	1,556	1,572	1,640	1,665	1,695	1,765
Others	20,041	20,804	20,050	19,857	20,207	20,669
Total Foreign	69,201	71,111	72,255	72,037	72,559	73,253
United States	13,691	14,043	15,094	15,331	15,576	15,838
Total	82,892	85,154	87,349	87,368	88,135	89,091

Notes: Chicken paws are excluded. From 2015, the following countries are excluded: Bahrain, Georgia, Iran, Jamaica and Moldova. From 2016, Venezuela is excluded. The notation of a month beneath a year conveys the month in which the forecast for that year was released.

Broiler Meat Trade - Selected Countries Summary
1,000 Metric Tons (Ready to Cook Equivalent)

	2013	2014	2015	2016	2017	2018 Oct
Total Imports						
Japan	854	888	936	973	995	990
Mexico	682	722	790	791	750	775
Saudi Arabia	838	762	863	886	780	740
European Union	671	712	730	761	720	720
Iraq	673	698	625	661	610	635
South Africa	355	369	436	504	500	510
China	244	260	268	430	450	480
Hong Kong	272	299	312	344	390	400
United Arab Emirates	217	225	277	296	340	335
Cuba	182	186	224	233	300	320
Others	3,651	3,728	3,072	3,001	3,159	3,310
Total Foreign	8,639	8,849	8,533	8,880	8,994	9,215
United States	55	53	59	59	56	59
Total	8,694	8,902	8,592	8,939	9,050	9,274
Total Exports						
Brazil	3,482	3,558	3,841	3,889	4,000	4,150
European Union	1,083	1,133	1,179	1,276	1,250	1,280
Thailand	504	546	622	690	770	800
China	420	430	401	386	400	385
Turkey	337	378	321	296	360	375
Ukraine	142	168	158	236	300	310
Argentina	334	278	187	158	185	200
Belarus	105	113	135	145	145	150
Canada	150	137	133	134	140	145
Russia	48	50	71	105	115	120
Others	338	377	344	356	323	340
Total Foreign	6,943	7,168	7,392	7,671	7,988	8,255
United States	3,332	3,310	2,867	3,014	3,091	3,189
Total	10,275	10,478	10,259	10,685	11,079	11,444

Notes: Chicken paws are excluded. From 2015, the following countries are excluded: Bahrain, Georgia, Iran, Jamaica and Moldova. From 2016, Venezuela is excluded. The notation of a month beneath a year conveys the month in which the forecast for that year was released.

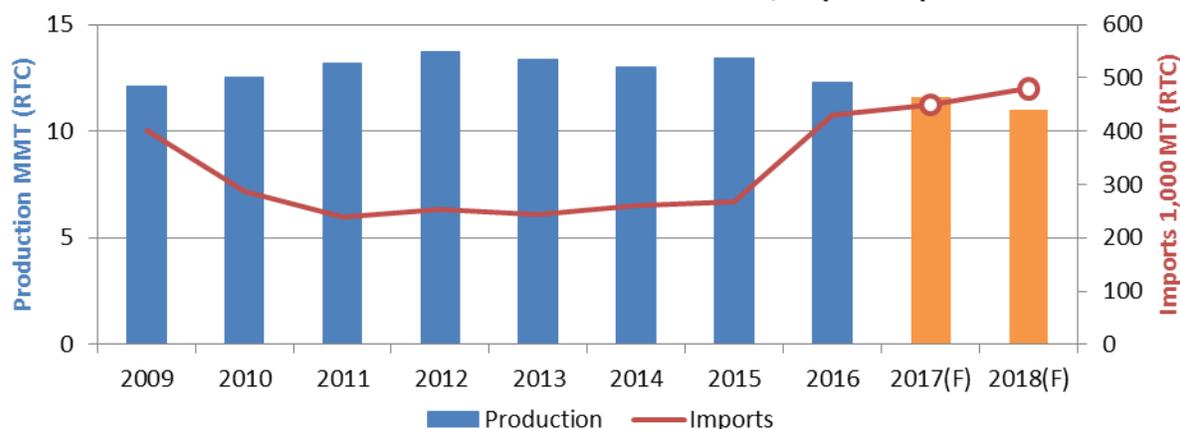
HPAI: A Negative for China's Producers but a Positive for Brazil Traders

Tyler Cozzens, Agricultural Economist

HIGHLIGHTS:

- Production constrained by highly pathogenic avian influenza (HPAI), limited availability of genetics, saturated market, weak prices, and soft demand.
- Imports rise in 2018 but remain only a small portion of consumption.
- Brazil the primary beneficiary of China's higher imports.

China Broiler Meat Production Declines; Imports Up



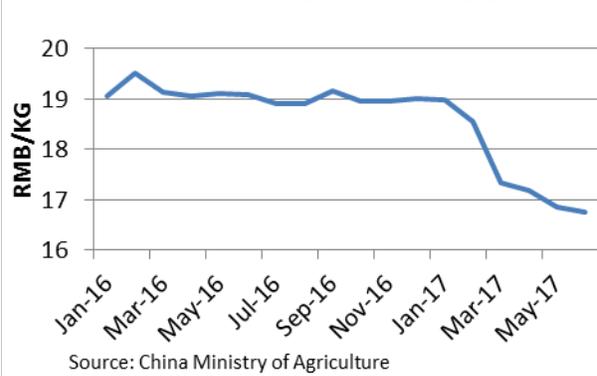
Source: USDA-FAS-PSD

Constraints in Broiler Meat Markets Limit China Production

China's production is forecast down 5 percent to 11 million tons for 2018. This follows declines in 2017 and 2016 of 6 and 8 percent, respectively as the country continues to struggle with recurring HPAI outbreaks. The impact on producers has varied. Some report only minor impacts, due to improved biosecurity, while others have incurred higher losses due to depopulation, closures of traditional wet markets, and soft consumer demand.

Notably, the recent outbreaks of the H7N9 strain have primarily occurred in wet markets where yellow-feathered birds are predominantly sold. In an effort to curb further spread of HPAI, the Chinese government has closed poultry sections at multiple wet markets. Because consumers prefer yellow-feathered birds based on taste and texture, wet market closures have constrained a marketing channel for these birds. As the stagnant broiler market continues, demand for traditional yellow-feathered birds will remain lethargic.

China Broiler Prices Continue Decline



Source: China Ministry of Agriculture

Available Genetics Shrink on Trading Partner HPAI Restrictions; Domestic Industry Develops

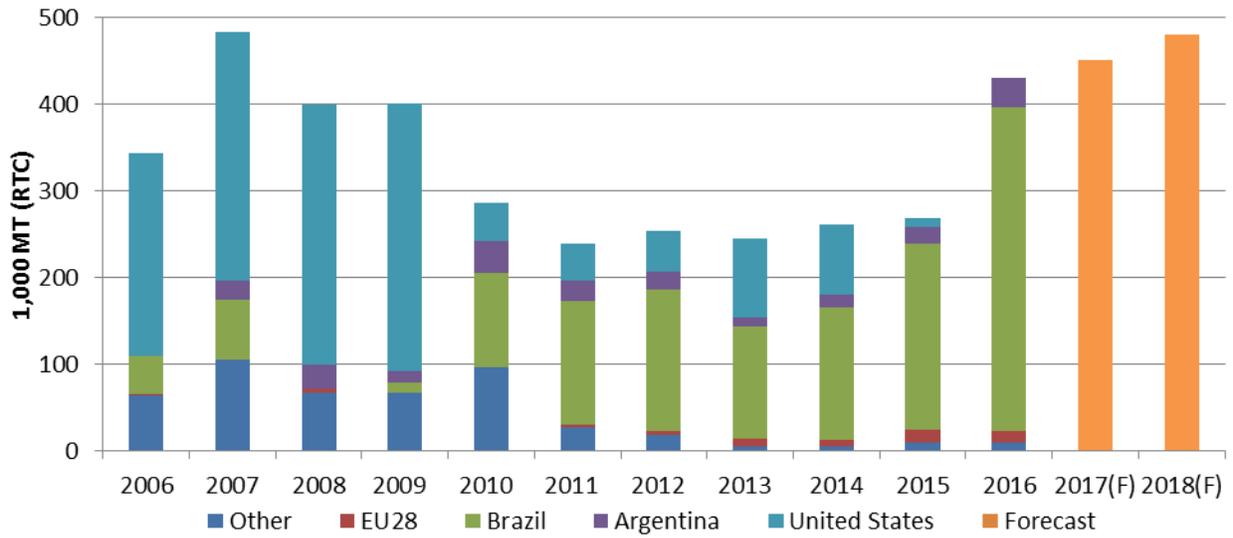
Genetics will continue to be an issue as China had typically imported its white-feathered grandparent stock from the United States. Through 2014, the United States supplied nearly all of China’s live chicken imports. Following the U.S. HPAI outbreak in 2014/15 and China’s subsequent restrictions, the country started sourcing genetics from France. As France later struggled with HPAI outbreaks in 2016, China switched to genetics from Spain, New Zealand, and Poland. Although China has recently started to develop its own supplies of genetics, lingering domestic HPAI issues and restrictions coupled with continuing outbreaks globally will limit available supplies.



Brazil Expands Market Share in China Due to Continuing Restrictions on Competitors

China’s 2018 imports are forecast up, for the fifth year in a row, to a record 480,000 tons; a 7 percent increase from 2017. Until 2009, the United States was the primary supplier of broiler meat with nearly 75 percent market share. China’s imposition of anti-dumping and countervailing duties in 2010 and HPAI restrictions in 2014/15 constrained – and then shut off – U.S. shipments. Brazil emerged as China’s main supplier in 2010 with less than 40 percent market share. By 2016, its market share had more than doubled to nearly 90 percent and is expected to continue to dominate as HPAI-related restrictions limit shipments from other major supplies.

Brazil's Market Share of China Broiler Meat Imports Continues to Grow



Source: IHS Markit

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Notes to Readers

The *Livestock and Poultry: World Markets and Trade* circular is designed to give a snapshot of the current situation among the major players in world beef, pork, and broiler meat trade.

PSDs Excluded Beginning in Year 2015:

- Cattle: Colombia and Venezuela.
- Beef: Albania, Azerbaijan, Cote d'Ivoire, Georgia, Ghana, Jamaica, Senegal, and Uzbekistan.
- Pork: Albania, Armenia, Congo (Brazzaville), Gabon, Georgia, Ghana, Jamaica, North Korea, Kyrgyzstan, Moldova, Switzerland, and Trinidad and Tobago.
- Broiler Meat: Bahrain, Georgia, Iran, Jamaica, and Moldova.

PSDs Excluded Beginning in Year 2016:

- Pork: Venezuela.
- Broiler Meat: Venezuela.

PSDs Excluded Beginning in Year 2017:

- Live Swine: Australia.

Data Revisions in PSDs for Years Prior to 2016:

Revisions are made based on new and/or additional information.

Commodity/Attribute	Years	Countries
Cattle		
<i>Stocks</i>		NONE
Beef		
<i>Production</i>	1996-2015	Kuwait and Libya
<i>Trade</i>	2008-2015	Angola, Canada, China, and Peru.
Swine		
<i>Stocks</i>	2015	Canada
Pork		
<i>Production</i>	2013-2015	Angola, El Salvador, and Singapore
<i>Trade</i>	2008-2015	EU, Russia, and United States
Broiler Meat		
<i>Production</i>	1995-2015	Australia, the EU, Iraq, Jordan, Kuwait, Malaysia, Oman, and Qatar.
<i>Trade</i>		NONE

Assumptions

- **Diseases:** Forecast reflects disease (avian influenza, bovine spongiform encephalopathy, etc.) policies and restrictions in place as of October 12, 2017 and assumes their continuation.

Conversion Rates and HS Codes

	Beef & Veal	Pork	Broiler Meat
Conversion Rate	1.4	1.3	None
HS Codes	Fresh/Chilled: 0201 Frozen: 0202 Processed: 021020 & 160250	Fresh/Chilled: 020311, 020312, 020319 Frozen: 020321, 020322, 020329 Processed: 021011, 021012, 021019, 160241, 160242, 160249	Fresh/Chilled: 020711, 020713 Frozen: 020712, 020714 Processed: 160232

Note: There are several exceptions by country/product. In general, chicken paws are excluded. Also, beef and veal estimates include meat of other bovines for certain countries. In particular, Indian estimates include carabeef (water buffalo).

Technical Notes

CWE/PWE: All quantities (beef and pork) noted are in Carcass Weight Equivalent (CWE) unless otherwise noted as Product Weight Equivalent (PWE). CWE is the weight of an animal after slaughter and removal of most internal organs, head, and skin. PWE is the actual weight of the meat product exported.

RTC (Ready-to-Cook): The weight of poultry certified wholesome by inspection after post-mortem condemnation pounds are removed. Ready-to-cook represents poultry meat ready for the marketing channel.

FAS Reports from Overseas Offices

The *Livestock and Poultry: World Markets and Trade* circular is based on post reports submitted since July 2017 and on available secondary information. The individual country reports can be obtained on FAS Online at: <http://gain.fas.usda.gov/Pages/Default.aspx>.

PSD Online

The entire USDA PSD database is available online at: <http://www.fas.usda.gov/psdonline>.

Additional Resources

Please refer to the USDA-FAS Dairy, Livestock and Poultry website at:

<http://www.fas.usda.gov/commodities/livestock-and-meats> for additional data and analysis.

Situation and outlook information on U.S. livestock and poultry can be obtained from the USDA-Economic Research Service at: <https://www.ers.usda.gov/topics/animal-products/>.

Future Releases and Contact Information

Please visit <http://www.fas.usda.gov/data/livestock-and-poultry-world-markets-and-trade> to view archived and future releases. The next release of this circular will be in April 2018.

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